



Chief Editor: Elsie Davis

January - February 2016



RD's Corner

Happy 2016, colleagues and friends!

I am beginning this New Year with a renewed sense of purpose about the importance of the work we are doing together as One Service to conserve fish, wildlife, plants and habitats for the American people. The enthusiasm and commitment that I feel is fueled by our accomplishments in the Southeast Region during 2015. They were nothing short of amazing, by any standard of measure.

The diversity of things that were done to further our conservation mission and improve our operations over the past year all have one common denominator: **Our People.** Our Southeast Region employees, dispersed across 10 states and the Caribbean territories, pulled together and performed with excellence in their endeavors. They improved our business practices, leveraged our resources among the programs, launched visionary landscape conservation activities, built powerful coalitions by finding common ground among groups with different missions and priorities, negotiated settlements and projects related to a disastrous oil spill, shepherded restoration and recovery of species and landscapes, maintained our safety record even as they fought wildfires, and in total, made a difference on-the-ground where it matters most – the fish and wildlife and their habitats. What follows is a recap of some of our regional accomplishments

continued on next page...

St. Marks National Wildlife Refuge conducts precision prescribed Fire at its Wildland Fire Education site

By Tom MacKenzie, External Affairs

While the fire crew at St. Marks National Wildlife Refuge regularly applies prescribed fire treatments on hundreds of acres at a time, they also scientifically maintain an area of the forest near the visitor center to show the public why prescribed fire is needed.

Scott's Plots Educational Fire Management site is located at the end of a spur trail off of the St. Marks Visitor Center trail. Scott's Plots area is an eight-acre site which has been divided into four two-acre plots. Prescribed fire is applied to three of the two-acre plots. The fourth plot is a control plot which is never burned. Each plot where prescribed fire is used has a date range and frequency for the prescribed fire to be applied. The Winter Plot is burned in December in the odd years. The Spring Plot is burned in April in the even years. The Summer Plot is burned in July in the even years. All three plots are burned every two years.

The difference is amazing. The two-acre plot that isn't burned is an impenetrable morass of thick palmetto, scraggy underbrush, and choked pines mixed with hardwoods. Dead brush festoons the unburned plot.

The other plots are clearly more open, free of deadfall, and exhibit a lush green understory. This young vegetation in the burned areas supports wildlife as a healthy part of their diet.

St. Marks has a strong record of conducting regular prescribed fires to reduce undergrowth, and manage habitat for wildlife, including the endangered red-cockaded woodpecker and frosted flatwoods salamander. Both species require fire on the landscape to survive. Fire helps remove tangled underbrush. Last year 23,062 acres were burned on the 72,000-acre refuge.

An added benefit of regular planned and controlled fires to people enjoying the refuge is the more open canopy, and increased visibility across the landscape to take photographs and watch the local animals and migrating birds. Prescribed fires also provide mobility-impaired, youth and other hunters an opportunity to pursue illusive deer.

"We apply the same rigorous safety principles on a small burn as we do on a larger one," said Fire Management Officer Greg Titus. "Of course, the larger ones can be more time consuming and complex; but, these small ones help us fine tune our teamwork."



Dale Shiver used a drip torch to light a prescribed fire at St. Marks, photo: Tom MacKenzie, USFWS

continued on page 3...

in 2015 and not meant to be all inclusive. They are representative of what we achieved working tirelessly together as One Service last year as a result of our passion for fish and wildlife conservation and our willingness to aim high, be creative and dare to do great things. If past performance is a predictor of future performance, 2016 will be another banner year in the Southeast Region.

Read on, and join me in being inspired!

- Our region led cross-state, cross-program, and cross-regional efforts with the four Gulf Coast LCCs and state, federal and other partners to complete the first-ever Gulf of Mexico Vulnerability Assessment (GCVA) for the entire Gulf Coast area this year. The GCVA assessed four ecosystems and 11 key fish and wildlife species across the Gulf to broadly ascertain which ones are likely to experience effects from a range of climate change impacts. The GCVA found that tidal emergent marsh was the most vulnerable ecosystem due in part to sea level rise and erosion. The Kemp's ridley sea turtle is the most vulnerable species along the Gulf Coast, and experts identified the main threats as loss of nesting habitat to sea level rise, erosion and urbanization. ***This critical information will help guide future conservation investments in the Gulf area to achieve maximum results.***
- Working with the Department of Justice and others, the Southeast Region played a key role in reaching a proposal for a global settlement to resolve civil claims and natural resource damage claims in the Deepwater Horizon Natural Resources Damage Assessment and Restoration case. Taken together with state and local economic damage claims, our efforts resulted in a proposed settlement of \$20.8 billion -- the largest settlement with a single entity in the Justice Department's history. This agreement includes up to \$8.8 billion to restore injuries to natural resources from the catastrophic Gulf oil spill of 2010; and a \$5.5 billion settlement under the Clean Water Act. A portion of these monies will be used to restore and protect the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, coastal wetlands, and economy of the Gulf Coast region under the RESTORE Act. ***Our agency's irrefutable scientific data played a major role in the assessment of injuries sustained by the Gulf due to the spill and were instrumental in developing a programmatic restoration plan that will be the roadmap for Gulf restoration into the future.***
- The Southeast Region, working with 15 Southeastern States, provided visionary leadership regionally and nationally in landscape-level conservation by conceiving and developing the Southeast Region Conservation Strategy (SECAS). In the history of North American conservation, this is the first-ever seamless, region-wide, partnership-directed and science-oriented comprehensive vision of the conservation landscape of the future. It addresses terrestrial and aquatic systems; past, present and future forecasts of climate and urban growth; and cultural and socio-economic dimensions. As part of this effort, the LCCs worked hard to meet SECAS milestone expectations - the South Atlantic LCC led completion of a blueprint that provides a seamless spatial integration of priorities along the entire Atlantic seaboard, which also includes the Peninsular Florida and North Atlantic geographies; the Gulf Coastal Plains and Ozarks LCC completed comprehensive ecological assessments for aquatic resources and upland pine systems and developed a draft blueprint for the Ozarks Highlands sub-geography; and the Caribbean LCC has engaged nearly a dozen nations to work collaboratively on a Landscape Conservation Design and coordinated monitoring for offshore cays. ***Conservation leaders across the nation are looking at our groundbreaking efforts to change the nation's conservation planning model, and are interested in implementing similar initiatives or to take SECAS to a national level.***
- We continued to address the daunting challenge of more than 450 southeastern species at risk of becoming threatened or endangered by working with the SEAFWA States to categorize and prioritize these species for which the Service is required to make 12-month petition findings over the next several years. Our innovative approach led to the categorization of species into four areas based on the collective knowledge of the species, its biology, status and distribution. Through this process, we made significant headway on on-the-ground conservation actions through robust partnerships with states, private landowners, conservation groups, industries such as ALCOA and the Southern Company, the timber industry, federal agencies and others. ***Our state partners embraced this approach and are now leading many of these efforts. So far, working with the SEAFWA, we've determined that 56 species do not require protection under the ESA as a result of conservation actions, updated surveys, or re-evaluations of threats to their survival.***
- ***Our efforts have provided significant returns and benefits to Service fish and wildlife resources, as demonstrated by the number of funded projects that had Service involvement or occurred on or near Service-managed lands.*** The Southeast and Southwest Regions led the Service's review and coordination of Gulf restoration proposals for Phase 3 of the National Fish and Wildlife Foundation's Gulf Environmental Benefit Fund, as well as coordinated reviews with all DOI bureaus, NOAA, and states. Our timely, well-coordinated efforts resulted in the approval of 28 projects totaling more than \$84 million that will be implemented in the Gulf. Since 2012, the Region has been involved in all parts the development, review, coordination and implementation of practically every one of the nearly 250 projects that have been selected for Gulf restoration.
- Our communicators from all of the programs are continuing to take big steps and exert leadership in how we communicate our actions and decisions related to listing, critical habitat, land management, conservation of monarchs, fish passage projects, and Migratory Bird Day and many, many

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RD's Corner continued...

other examples. ***This outreach and transparency with stakeholders is producing positive results for our regional priorities and our conservation work more generally across the Region.***

- The region implemented innovative strategies to reduce administrative costs, increase quality of business services, and enhance internal controls. For example, by partnering with the Southwest Region on shared services in Employee Relations and Ethics offices, we saved \$500,000 annually. Our region's rigorous analysis of business functions, workload trends, organizational alignment, existing capacity, and shared service options resulted in total savings of more than \$1 million in 2015.

- ***Collaborative fish and wildlife conservation flourished in 2015 under our leadership.*** For example, through partnerships with states, communities, and organizations such as The Nature Conservancy and American Rivers, the Fisheries program removed 11 barriers in two regions opening 28 miles of streams and 328 acres; and restoring many miles of shoreline and streambeds for the benefit of more than 145 threatened and endangered aquatic species, species of concern, and recreational species, all at significant cost savings over traditional approaches. We also overcame historic controversies and disparate views to work collaboratively with state and county governments and local communities to protect the endangered West Indian manatee in Florida. Our collaborative conservation actions resulted in the reduction of threats and the highest estimates ever with more than 13,000 manatees across its range (including over 6,000 in Florida and 500 in Puerto Rico), which resulted in a proposal to downlist the species under the ESA. Additionally, 11 federally listed species require less protection, are recovered and need no protection, or are proposed for delisting under the ESA. Even in the face of management turnover and substantial staff reductions, our Fire program once again led the entire Department of Interior with 270 prescribed burns, treating 128,300 acres while simultaneously responding to 270 wildfires and supporting national

fire program needs on 117 fires from Alaska to Puerto Rico. ***Equally important, our fire safety record is exceptional, and our employees received the first of only two national fire safety awards.***

- In the area of communications, this region took another big step in 2015 dramatically increasing our communications, collaboration and contact with Members of Congress and their staffs from district offices to Capitol Hill by roughly 25 percent. Two examples include – the conservation work at White River was included in Department of Interior testimony focusing on LWCF, and the development of a constituent guide, which drew praise from Senate staff, that provides simple, clear explanations of how Endangered Species Act exemptions and critical habitat for the Black pinesnake would impact specific stakeholders. ***These relationships are leading to simpler solutions because of the work we are doing to communicate better; address issues, provide clarity, and answer specific questions.***
- ***Our commitment to employee safety extends to all our operations.*** For example, our Refuge Law Enforcement program led the Service in implementing the first-ever, three-year internal review program to proactively evaluate and improve safety and operational effectiveness.
- ***Finally in 2015, we started a multi-year effort to refocus on employees and make our region even better.*** Communicating with our people and ensuring opportunities for their development and advancement was a key focus for staff at all levels throughout the year. We deployed Diversity Change Agents to help us improve diversity and ensure inclusion for all our people so that we can develop and retain a diverse, highly qualified workforce that represents and relates to the American public. We encouraged and supported our employees' professional growth through formal training, developmental opportunities, and individual development plans. Our employees across the region participated in listening sessions throughout the year, providing valuable feedback to the Regional

Directorate Team to improve the functioning of our programs. Our Regional Directorate Team met with employees at their stations throughout the year to “walk a mile in their shoes” and create dialogue about regional priorities and employee perspectives. ❖

– *Cindy*

St. Mark's prescribed fire continued...

On December 7, 2015, the eight-person team conducted a full planning briefing, and used the temperature, wind, weather, and habitat factors to plan for the small burn. They also used the same safety planning, communications notifications, and emergency action planning as with larger treatments.

They initially used drip torches filled with a 70/30 mixture of diesel fuel and gasoline to light a test fire on the downwind side of the plot to see if their objectives will be fulfilled and to see if the fire will burn as expected.

It burned as planned.

Given the ‘Go’ by Firing Boss, Meagan Bieber, the team spread out to monitor the blaze and the smoke. On her command, a two-person fire team composed of Brian Pippin and Dale Shiver walked along the downwind side directly adjacent to a fire break that had been refreshed that morning by Fire Equipment Operator Willy Lindsey.

The igniting flames from the drip torch reached the edge of the firebreak and pushed back into the unburned grass and palmetto. As Brian made his first transect, parallel to, and about 20 feet from, Dale's first ignition line, the flames started to join together, actually changing the direction of the very minor breeze on that cool Florida afternoon. The smoked wafted upwards, fanned by the gathering heat from the two lines of man-made flames.

The torch-bearers then walked through the burn unit contained within firebreaks and continued to repeat the lines until they reached the end of the plot. The blaze burned as planned, and the smoke acted as planned, moving away from the nearby visitor center and office.

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An additional team of two firefighters equipped with a fully loaded wildland fire-fighting engine was prepared to respond to any fire that jumped the lines. None did, but they extinguished some of the smoldering pines just as an added precaution to prevent any possibility of a getaway fire.

Equipment Operator Lindsey was ready to snuff out any outliers, but he had accomplished his mission before the fire was even set, encircling the two-acre plot with a nice firebreak, which will double as a trail for visitors.

By the time the fire team reached the end of the burn area, their first line of flames was already flickering out, having burned underbrush and grass, consumed dead palmetto leaves to leave smoldering ash to fertilize and allow fire-dependent grasses and shrubs to regenerate. Those new grasses will start popping up after the first few rains, followed by tasty buds of regenerating shrubs like gallberry and high bush blueberry. The deer and other wildlife will swing back into the area to chow down on those tasty, nutritious morsels within the first month or two. In six months, rainfall and subsequent plant growth will obscure most of the fire scorch on the trees and woody plants. Thus, the prescribed fire is leaving a healthier pine stand which will show people why fire is important in the forests and ecosystems. Actually it will show why fire is necessary for Florida and all the other fire dependent habitats in the nation.

Without prescribed fire, catastrophic wildfire burns hotter, damaging and killing forests. Wildlife would suffer without controlled burns to regenerate the vegetation, and so would the people who come to enjoy this stunning landscape, to hunt, photograph wildlife, or just enjoy the serenity of southern lands as they were meant to be – unspoiled by urban development and regularly burned. ❖

Southeast firefighters battle 117 wildland fires in 2015

By Elsie Davis, External Affairs

Southeast Fish and Wildlife Service's employees, retirees, and emergency firefighters travelled across the United States during 2015, helping to manage 117 wildland fires from Puerto Rico to Alaska.

Many of the people who volunteered are not paid through the Fire program. Several work for Ecological Services, Refuges, or Law Enforcement, and emergency firefighters, most from Puerto Rico, also responded. In total, Southeastern employees logged more than 5,800 shifts on these fires.

Calls for help are dispatched through the National Interagency Fire Center, and those with resources closest to the fire's location are asked to be first responders. Typically, firefighters on a detail work 12- to 14-hour shifts, seven days a week, during a two- or three-week stint.

In 2015, about 180 Southeastern employees fought fires out west from June to early October. In the west, tent towns are set up near the fire. The camps have portable shower units and caterers set up in portable kitchens.

During August through October, firefighters also contained or doused several fires on Southeastern refuges, including the Caribbean National Wildlife Refuge Complex and refuges in Mississippi, Louisiana, and Arkansas. In the east, firefighters stay in hotels and rely on daily per diem rates for meals.

Shout-outs to these Southeastern employees for serving on the most fire details in 2015:

Glenn Catoe from Southeast Louisiana Refuges worked on a detail for the entire summer with the Redmond Interagency Hotshot Crew.

John Mason	Piedmont National Wildlife Refuge	9 details
Toby Price	Piedmont National Wildlife Refuge	9 details
Grant Gifford	A.R.M. Loxahatchee National Wildlife Refuge	8 details
Jennifer Hinckley	St. Marks National Wildlife Refuge	8 details
Ryan Sharpe	Merritt Island National Wildlife Refuge	7 details
Brian Pippin	St. Marks National Wildlife Refuge	7 details



Each fire shift starts with a daily briefing, photo: USFWS

Employee Spotlight

Two key players coordinate across funding sources to restore the Gulf of Mexico

The 2010 Deepwater Horizon oil spill was historic - from the volume of oil released, the extent of oiling, to the injury wrought on the environment. The total monetary penalties and damages responsible parties will pay for restoration are far greater than ever before paid after a single incident. Service employees are integrally involved in determining how more than \$15 billion will be used to restore the Gulf of Mexico. Two of those people are featured below.



Colette Charbonneau with her horse, Samantha. Colette works in the Fish and Wildlife Service's Denver Office, photo: Cyndi Perry, retired USFWS.

Colette Charbonneau, DOI Restoration program manager, Deepwater Horizon NRDAR Case Management Office

By Nanciann Regalado, DOI Deepwater Horizon NRDAR Case Management Office

Colette, what role do you play in restoring Gulf of Mexico?

The Department of Interior is one of the nine Deepwater Horizon NRDA Trustees and as a member of the Interior's NRDAR team, I've been responsible for coordinating our efforts to find suitable restoration projects for funding with the \$1 billion pledged by BP for Early Restoration. In addition, I've had

responsibility for leading the Trustees' Restoration Committee, which identified projects for all of the Trustees to consider for Early Restoration. In that role I also managed preparation of each of the Trustees' five Early Restoration Plans. All told, the Trustees approved 65 projects having a combined cost of \$864 million. I look forward to having a major role in the restoration that comes after a final settlement with BP is reached.

I take pride in being part of a process that helps fix what the polluters broke. My passion is for the plants and critters that are harmed by humans. As Dr. Suess wrote in *The Lorax*, "I speak for the trees for the trees have no tongues."

How did you come to work for the Service?

Well, I've been interested in the environment for as long as I can remember, but there was one day that set me on a path to the Service. When I was in high school, a teacher handed me a small mesh net and a white pan and sent me out to see what I could find in a nearby trout stream. I scooped the net through some brushy areas in the water, dumped my catch into the pan, and I was hooked for life after seeing what actually lived in the water. It was just the coolest day; I will never forget it!

After high school I went to the University of Wisconsin and got a Bachelor's of Science Degree in wildlife management with a minor in water resources. I went to graduate school at the University of Missouri and there I had my introduction to the FWS - I did research for the Service as a coop student. And as they say, "The rest is history" ❖

Debbie DeVore: Restoration Coordinator for the Service's Gulf Restoration Program (GRP)

By Nadine Siak, Gulf Restoration Program

What role do you play in restoring Gulf of Mexico?

I hold and facilitate conversations with and among our Service biologists and managers so that I can better understand and be a voice for our habitat restoration needs and priorities. I work with staff in each of our Service programs and field offices throughout the Gulf watershed to maintain a database of project proposal



Debbie DeVore goes fishing, photo: courtesy Debbie DeVore

ideas, and find opportunities to get these projects submitted for funding consideration. It is my responsibility to understand and work with the new funding sources related to Gulf restoration (NFWF Gulf Environmental Benefit Fund, RESTORE Act, NAWCA Gulf Program, etc.), as well as traditional programs such as the National Coastal Wetlands Grants Program and Coastal Program. Additionally, I work closely with the GRP Science Coordinator to link decision support tools to project development across the Gulf.

I particularly enjoy interacting with so many people who truly love what they do every day. I feel lucky to represent them, and do my best to help them see their ideas come to fruition on the ground. My greatest sense of success comes from seeing a project under construction and Nature saying "thank you" in its own way -- through the fish and wildlife response.

How did you come to work for the Service?

Somehow, I knew from my childhood days of watching Jacques Cousteau on TV -- while living in the country in central Texas -- that I would be a marine biologist. Attending Sea Camp while in high school sealed the deal. Fast forward through undergraduate and graduate school at Texas A&M Galveston, and I was headed towards a fisheries management career.

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A well-paying job as a consultant at an engineering firm, however, fell into my lap. But the job wasn't a good fit, and it came with a 60+ minute commute through Houston traffic. Wanting a fisheries-related job, and ready to leave the firm, I leapt at the chance in 2001 to take a contractor's position starting up NOAA's new Community-Based Restoration Program two blocks from my house.

To my surprise, I fell in love with restoration work! One year later, I was offered a full-time career position with the Service's Coastal Program. That's where my journey really began. I was fortunate enough to serve the Coastal Program in both Texas and South Florida until 2011. I feel like I'm now adding the last piece of the Gulf puzzle to my career portfolio by living on the northern Gulf coast. ❖

What's Trending

By Katherine Taylor, External Affairs



Apps: This app is for our USFWS hunters. Quiver lets you track deer movement and monitor real time weather data for hunting locations. This simple app helps the user hunt smarter and increases chances of seeing deer.

#MostSharedStory: Our proposal to downlist the West Indian manatee reached 53,862 Facebook users. The link to the news release was clicked 727 times, which is fantastic!



Social Media:

To celebrate this year's Migratory Bird Centennial, we'll be featuring #birdyear stories throughout the year on social media. Have an idea for a post? Send it to Katherine: katherine_taylor@fws.gov

Culture: Facebook is beta testing new engagement features in addition to the "like" button. They're testing select user's level of engagement with the option to "love" or "laugh" at a post. ❖

Allan Brown visits Panama City Field Office to aid Panama City crayfish

By Patty Kelly,
Panama City Field Office

We spent a day with Fisheries ARD Allan Brown discussing the complexities of recovering a rare species, the Panama City crayfish which is located in the heart of Panama City, Bay County, Florida. In an area developed with highways, schools, homes, and businesses, most folks are unaware of the existence of a small, burrowing crayfish. Yet, the Service and Florida Fish and Wildlife Conservation Commission are working with partners to conserve this crayfish.

Preserved almost by accident, the Panama City crayfish remains on discrete lands set aside for wetland mitigation many years ago. Despite the lack of habitat management, this durable critter's populations are improving with management actions that include hand clearing, gyro-tracking, mowing, and, on a rare occasion, a prescribed fire. A big challenge to future conservation activities is the lack of basic biological knowledge about the Panama City crayfish. What is their key dispersal method, how deep do they burrow in times of drought, how long can they withstand drought, and how viable is their genetic structure within 6- to 20-acre easements?

The Service has a long list of at-risk and federally protected species; but, Allan Brown recognizes that Fisheries staff members could assist Ecological Services biologists by filling these information gaps and assisting with land management actions for the Panama City crayfish and other rare aquatic dependent species. I was encouraged by Allan's generosity and insight into how to effectively meet the Service's mission across program boundaries. We had lunch with our Florida Fish and Wildlife



Allan Brown and the Panama City crayfish, photo, Sean Blomquist, USFWS

Conservation Commission partners and discussed their role in the Panama City crayfish's recovery. Since this crayfish is a state-listed species, the Florida Fish and Wildlife Conservation Commission has its own internal processes at work to manage and regulate project impacts to the crayfish.

Allan says he truly benefited from the day spent discussing Panama City crayfish, seeing the strongholds of crayfish populations on Bay County Conservancy easements, and how the close partnership between our Ecological Services office and the Florida Fish and Wildlife Conservation Commission results in effective habitat management. Next time you see Allan, ask him the secret to confirming the identification of different crayfish species!



Mike Oetker, Deputy Regional Director of the Service's Southeast Region, feeds a manatee as Jessica Schiffhauer, an assistant animal care supervisor at Miami Seaquarium, looks on. photo: Ken Warren, USFWS

Historic day for manatees and Mike Oetker

By Ken Warren, South Florida Ecological Services Office

On a warm and sunny day in South Florida, palm trees swayed as a cool breeze blew in from across Biscayne Bay prompting Mike Oetker to say while looking at sea cows glide along peacefully at Miami Seaquarium. "This setting is right off my bucket list."

Mike, Deputy Regional Director of the Service's Southeast Region, was at the Seaquarium January 7, for a news conference to announce that the Service proposes downlisting West Indian manatees from endangered to threatened. The event was held right at the edge of the pool where rescued manatees are rehabilitated and/or kept if they can't be returned to the wild.

As the manatees swam by, Mike delivered the good news saying, "The Fish and Wildlife Service recently completed our review of the manatee's status and based on the best available scientific information we believe the manatee is no longer in danger of extinction."

He added, "This action we're announcing, really in our view, demonstrates the successes of how the Endangered Species Act can and does work...and is making waterways safer and cleaner in Florida."

Participating with Mike in the news conference were: Larry Williams, the Service's Florida State Supervisor for Ecological Services; Jay Herrington, Field Supervisor of the North Florida Ecological Services Office; Jim Valade, the Service's Florida Manatee Recovery Coordinator; and Ernie Marks, Director, Florida Fish and Wildlife Conservation Commission, South Region.

"It's really a success story. It's like taking manatees out of intensive care and putting them in a regular care facility," Jim said. "They still need our attention without a doubt, but they are no longer in intensive care per se."

The Service is providing a 90-day comment period on this proposal. Following the comment period, the Service will review the comments, any additional data or information received, and then make its final status determination.

After the news conference, Miami Seaquarium employees gave Mike the unique opportunity to get up close and personal with manatees, including the chance to feed them. It was indeed, a day of bucket list experiences for him and West Indian manatees.

Leadership Quote:

Try not to become a person of success, but rather a person of value.
— Albert Einstein

Habitat restoration for the Bartram's scrub-hairstreak butterfly

By Kate Watts, Florida Keys NWR Complex

In July, the National Key Deer Refuge, in cooperation with researchers from North Carolina State University, began a multi-year habitat restoration project for the endangered Bartram's scrub-hairstreak butterfly.

Bartram's scrub-hairstreaks are only found in South Florida's pine rocklands, 90 percent of which have been lost to development in the past century. The open, park-like structure characteristic of pine rockland forest was historically maintained by frequent, low-intensity fires. Without disturbance, species such as pineland croton, the butterfly's only host, are lost due to succession. This vulnerability even extends to rocklands within protected lands. Both croton and hairstreaks have declined within the refuge. Today, peak daily butterfly abundance is estimated to be only about 100 butterflies.

To reverse this decline, refuge staff have implemented mechanical vegetation thinning treatments and planned future prescribed burns. These restoration actions, as well as a combination of clearing followed by burning, are being applied in three locations on the refuge with the goal of returning the ecosystem to its historic condition.

To evaluate the success of restoration activities, North Carolina State University researchers tagged 300 croton plants before treatments were implemented. This spring, researchers will re-visit all tagged croton plants to determine the fate, including growth and survival, of each plant following restoration. Researchers also will search for the presence of butterfly caterpillars and evidence of their feeding, and survey for adult butterflies and butterfly predators, including native and invasive ants and brown anoles. By using an experimental approach, researchers will be able to determine which method of understory reduction – mechanical or fire – best enhances host plant and butterfly populations, and minimizes potential predator populations.

In addition to pineland croton and Bartram's hairstreaks, several plant species, currently candidates for federal listing, also are being monitored. These plants include Big Pine partridge pea, sand flax, wedge spurge and Blodgett's silverbush. Refuge biologists are interested in gaining a better understanding of the plant response to habitat management treatments. This research will provide the refuge with information to help improve conditions for these and other imperiled pine rockland species.

Although formal surveys for tagged croton plants have yet to be completed, a handful of croton and Big Pine partridge pea plants have been spotted re-sprouting in mechanically cleared plots! Refuge staff members are optimistic that butterflies may lay eggs on these plants this spring.❖



Adult Bartram's scrub-hairstreak butterfly, photo: Chad Anderson, former biologist for National Key Deer Refuge

Chinese delegation sees successful Everglades Restoration Project



The Chinese delegation looks at the "dewatered" Faka Union Canal at Picayune Strand, photo: Kim Dryden

By Ken Warren, South Florida Ecological Services Office

Kim Dryden had one of the luckiest days of her life December 15, while escorting a group of Chinese conservationists around Southwest Florida, when after 31 years in the area she saw only her fourth and fifth wild Florida panthers.

It happened as she drove into the Florida Panther National Wildlife Refuge early in the morning and spotted two panthers sitting just off the road heading into the refuge.

"I was still excited when I finally met our Chinese visitors later at the Picayune Strand Restoration Project a few miles away and told them I believed they brought me good luck," Kim said.

Members of the Chinese delegation were visiting Florida under the U.S.- P.R.C. Nature Conservation Protocol. The Chinese delegation was from their State Forestry Administration and wanted to learn about wetland monitoring and restoration.

That translated to a visit to Florida to learn about Everglades Restoration-- arguably the world's largest and most ambitious wetlands restoration effort. While in the Sunshine State, they were hosted by the U.S. Fish and Wildlife Service, Florida Forest Service, and South Florida Water Management District. Kim, a biologist with the South Florida Ecological Services Office, was asked to lead a tour of the Picayune Strand Restoration Project, long recognized as a hallmark of Everglades restoration. .

"The inquiries by our Chinese visitors were directed towards coordination between the different state and federal agencies," Kim said. She added that they also were interested in exotic plant control, flood control, fire and fire

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equipment, forestry management, and technical aspects of the pump station operations like the one they visited at Picayune Strand.

"The District ran the pump station for us and demonstrated some of the operations. We saw lots of fish and wildlife on site—but no panthers, although there are panthers there," Kim chuckled.

The visitors were from various regions of China. "For me, it was interesting that there were three women in the group who were upper managers, and a student who was a relative of one of the visitors who is pursuing a degree in environmental policy at Cornell," Kim said. "Our interpreter works at Voice of America for the State Department. Our folks from DC, Steve Kohl and Damon Yeh, were just great!"

Kim says she and other the Americans involved were impressed with the interest and knowledge expressed by the Chinese entourage in the Everglades. "We tried to communicate that fixing damage done by drainage infrastructure is expensive, complicated, and long-term. Therefore, it's better to avoid the mistakes, such as draining wetlands, impacting estuaries, and losing fish and wildlife resources in the first place—like we did." Then she quickly added, "But we're trying to fix it!" ❖

Follow the Leader

Greg McGinty, Equal Employment Opportunity (EEO) Specialist



Greg smiles with Puddles at a work event, personal photo

By Jennifer Strickland, External Affairs

Greg McGinty is a colleague who inspires trust. With a cheerful demeanor and a positive, can-do attitude, Greg abides by two leadership principles he adopted during his 23 years in the military: "always out front" and "lead by example." To explain the first principle, Greg says, "In order to be effective, a leader must be seen." That's as simple and letting your

employees know that you are there, and checking in with them. "Believe it or not, most employees will give their supervisors the benefit of the doubt in any situation based on the way supervisors engage and interact with them."

The second principle is one we've all heard before, but Greg provides insightful context. "Leading by example sets the tone for the workplace. There are supervisors who tell their employees to be on time, but they themselves are consistently 15 minutes late," Greg says. "Great leadership takes strength of character and a solid commitment to do the right thing, at the right time, for the right reasons. It's doing what you say, when you say it."

Daily, Greg leverages a range of tools that promote a healthy work environment, including informal workplace climate assessments, EEO complaint intake, and conflict resolution for managers and employees. In addition, Greg has excelled at one of his "other duties as assigned," serving on the Regional Office's Leading Change team. In 2015 he provided a series of popular training seminars to Regional Office employees on how to prepare for the transition to the new space.

"The best way I've found to manage change is to reduce fear," Greg says. "Arm yourself with as much information as possible about the change. Try to answer the Who, What, When, Where, Why and How." While Greg acknowledges that it is ultimately management's duty to keep staff informed of change, he notes that personal responsibility is also key. "Every employee should hold themselves accountable and ensure that they are in the 'know.'"

Like so many of America's brightest leaders, Greg advocates for diversity and inclusion within the workforce. "The demographics of this great nation are changing, and they're changing at a rapid pace," Greg acknowledges. "Diversity and

inclusion is not only crucial for leaders, it's crucial for our survival and our ability to remain relevant as an agency. That's why it's imperative that leaders not only understand but embrace the need for diversity and inclusion when making all businesses decisions."

When asked for tips on how someone could take a step to practice diversity and inclusion starting today, Greg replied, "Check your baggage at the door. We all have our comfort zones, personal biases, perceptions, and even stereotypes. It is ok to have those biases, those likes and dislikes, but when it comes to dealing with co-workers or making decisions for the Service, your baggage should not influence those interactions and decisions."

Serving others seems to be something Greg was meant to do with his career. Born and raised in Jackson, Mississippi, Greg graduated Jim Hill High School in 1978, and promptly joined the United States Army. With the exception of a three-year break in service, he served for over two decades, retiring on December 31, 2004. "After retirement from the military, I wanted to become an everyday fisherman. However, due to having a little one in middle school, I re-entered the workforce." Greg joined the Service in June 2006.

"I felt this job was a perfect fit for me," he says. "I've been involved with EO, EEO and Diversity programs in some way, shape, or form since 1996."

During his time in the military, Greg met his mentor and friend, Sergeant Major George W. Akers. "His guidance and leadership was invaluable in my successful career development as a soldier," Greg says. "I remember and live by these words he always spoke: 'If you are honest and tell the truth, you never have to remember what you said.'"

Bragging Rights

Lori Miller: environmental champion



Lori Miller displays the hardware she received for being named the top individual in environmental leadership and achievement in both the Department of the Interior and U.S. Fish and Wildlife Service, photo: Miles Meyer; USFWS

By Ken Warren, South Florida Ecological Services

Lori Miller of the South Florida Ecological Services Office was confirmed as one of the Department of the Interior's best of the best when she was recently honored as being the DOI's and U.S. Fish and Wildlife Service's top individual for environmental leadership.

"Lori leads the way nationwide for the Service on climate change issues. These prestigious national awards are well deserved," said Larry Williams, the Service's State Supervisor for Ecological Services in Florida.

These awards recognize offices, employees and contractors for exceptional achievements in recycling, waste/pollution prevention, sustainable design and green buildings, energy efficiency and renewable energy, environmental management systems, environmental cleanup and restoration, and minimized petroleum use in transportation and green purchasing.

Miller is a senior hydrologist and has been with the Service since 2008. Her accomplishments during the award period included:

- Leading the development of the Southeast Region's Climate Change Sharepoint depository for the latest climate change research and publications;
- Assisting the National Climate Team with interpreting climate model output of precipitation, temperatures, and sea level rise from the 2013 Intergovernmental Panel on Climate Change (IPCC) report and the 2014 White House-released National Climate Assessment (NCA);
- Co-authoring Highlights of the IPCC Report" and "Synopsis of the NCA for the Service; and,
- Developing the Species Climate Outlook—a monthly report that links weather and climate change to the protection and recovery of threatened and endangered species and their important seasons of foraging, nesting, migration or the flowering of rare plants.

According to Miles Meyer, Lori's supervisor, the Species Climate Outlook is a groundbreaking, vital tool for Service biologists. "It helps us with recovery activities such as development of rules and listing packages for candidate species and with formulating biological opinions," he said.

He added that there's an expansive list of consumers outside of the Service who use the product, "It's also used by various state and federal agencies for water management decisions and future restoration planning within the Greater Everglades and the Kissimmee River Basin."

Lori said, "I'm humbled and honored to know my work is appreciated...but most of all useful." ❖

Randy Browning receives TWS Award



Randy Browning received The Wildlife Society's Conservation Education Award, photo: USFWS

By Connie Dickard, Mississippi Ecological Services Field Office

Randy Browning received The Wildlife Society's Conservation Education Award, in the book category, for his part in writing *Fish and Wildlife Management: A Handbook for Mississippi Landowners*.

Information in this comprehensive guide ranges from natural resource history in Mississippi and conservation planning – to management for specific wildlife species and backyard habitat – plus everything in between. In addition to the user-friendly tables and illustrations for management ideas, the book also contains more than 300 images.

To develop this handbook about land management techniques for fisheries and wildlife, Randy teamed up with several other experts from several other agencies including: Mississippi Department of Wildlife, Fisheries, and Parks; Mississippi State University; USDA Natural Resources Conservation Service; USDA Animal and Plant Health Inspection Service's Wildlife Services; U.S. Fish and Wildlife Service; and Wildlife Mississippi.

Collaboration: Working with the Mississippi Ecological Services Field Office, Mississippi State University graduate students surgically implant a sonic telemetry tag into an anesthetized pallid sturgeon on the Lower Mississippi River.

Collaboration – an important component of conservation



Working with the Mississippi Ecological Services Field Office, Mississippi State University graduate students surgically implant a sonic telemetry tag into an anesthetized pallid sturgeon on the Lower Mississippi River: L to R: Colin Dinken, Dylan Hann and Kevin Keretz, photo: Paul Hartfield, USFWS.

By Paul Hartfield, Mississippi Ecological Services Field Office

Collaborative efforts between several agencies have increased knowledge of the endangered pallid sturgeon from less than two dozen historical records, at a few locations - to over a thousand fish records, from dozens of sites - throughout the 1,000-mile reach of the Lower Mississippi River.

The U.S. Army Corps of Engineers, U.S. Geological Survey, U.S. Fish and Wildlife Service, and the state conservation agencies of Arkansas, Mississippi, Tennessee, and Louisiana teamed up during the past decade to grow the data base of this ancient fish species. The team is gathering information that was previously lacking on species. Using sonic technology, the pallid sturgeon's frequently used habitats are being identified, as well as its seasonal, long-range, and interbasin movements. The multiple agencies are reaching a consensus interpretation of the information along with identifying and implementing appropriate management practices.

Collecting the information on the pallid sturgeon and working collaboratively have been essential in the development of the Corps' Mississippi Valley Division Conservation Program under section 7(a)(1) of the ESA, which also includes the endangered Interior least tern and fat pocketbook mussel. ❖

Join the crane tour



All abroad for a crane tour, photo, USFWS

By Melissa Perez, Mississippi Sandhill Crane NWR

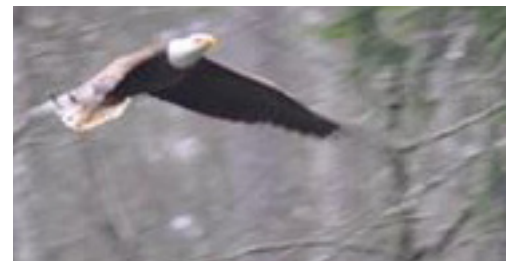
The natural progression of the seasons brings many changes to the Mississippi Sandhill Crane National Wildlife Refuge, from the change in foliage to the arrival of migratory birds, seasonal changes offer new wonders to observe throughout the year. Perhaps one of the most anticipated seasonal changes for the refuge visitor is the return of the elusive twelve-passenger van – that's right, fall and winter signals the return of crane tour season!

During the refuge's crane tours, visitors go on safari with a guided tour deep into the refuge to catch a glimpse of the extremely rare Mississippi sandhill crane. There are an estimated 120 Mississippi sandhill cranes left in the wild, and they are exclusively found in Jackson County, Mississippi. Due to the critically endangered status of the cranes, many portions of the refuge are inaccessible during the spring and summer months to protect the birds during the sensitive breeding and nesting period. When fall starts, visitors have the opportunity to join park volunteers and staff to go in search of the cranes. Reservations for the tour are required as vehicle space is limited, and many of these popular tours are booked to capacity many weeks in advance.

In addition to capturing a glimpse of the rare and beautiful cranes, visitors often see a variety of wildlife along the way – from the elusive Henslow's sparrow (one-quarter of this sparrow's population overwinters at the refuge!) to the majestic bald eagle, visitors are regularly treated to exceptional wildlife viewing opportunities. In addition to the wildlife, visitors also learn more about the wet pine savanna habitat and how refuge staff manage and restore this ecosystem that is so critical to the survival of the Mississippi sandhill crane.

We invite you all to join us on your own crane safari, if you are visiting the Mississippi Gulf Coast during the fall or winter, give us a call 228/497 6322, ext. 101) and reserve your spot for a unique wildlife adventure. ❖

Bald eagle at Chattahoochee Forest National Fish Hatchery



Bald Eagle soars over Chattahoochee Forest NFH, photo: Kelly Taylor, USFWS.

By Crystal Thomas, Chattahoochee Forest NFH

Many people visit Chattahoochee Forest National Fish Hatchery each day with one thing in mind - getting to see the fish. Did you know that fish aren't the only creatures you might see at the hatchery? Bald eagles (like the one pictured majestically soaring over the raceways in December 2015), Osprey, Cooper hawks, and red-tailed hawks often make appearances. There are numerous song birds that come by including: gold finches, cardinals, and bluebirds. Great blue herons and green herons also are seen. If you are an avid bird watcher, you might want to try checking out some at the hatchery. Don't forget your binoculars!

Severe Flooding at Chattahoochee Forest National Fish Hatchery

By Crystal Thomas, Chattahoochee Forest NFH

Christmas Eve and Christmas Day did not bring a gift of snow to the Chattahoochee Forest National Fish Hatchery and the north Georgia mountains. Instead, the area was hit with the first of two rounds of severe flooding with the second round occurring on December 28. Staff members worked around the clock battling rising water levels on Rock Creek which runs through the hatchery grounds and Mill Creek which runs into the upper end of the hatchery. At one point, the banks of Rock Creek were running over into the raceways on the lower end of the hatchery grounds. Thanks to quick thinking, seasoned expertise, long hours, and hard work invested by dedicated employees, there were no major losses.



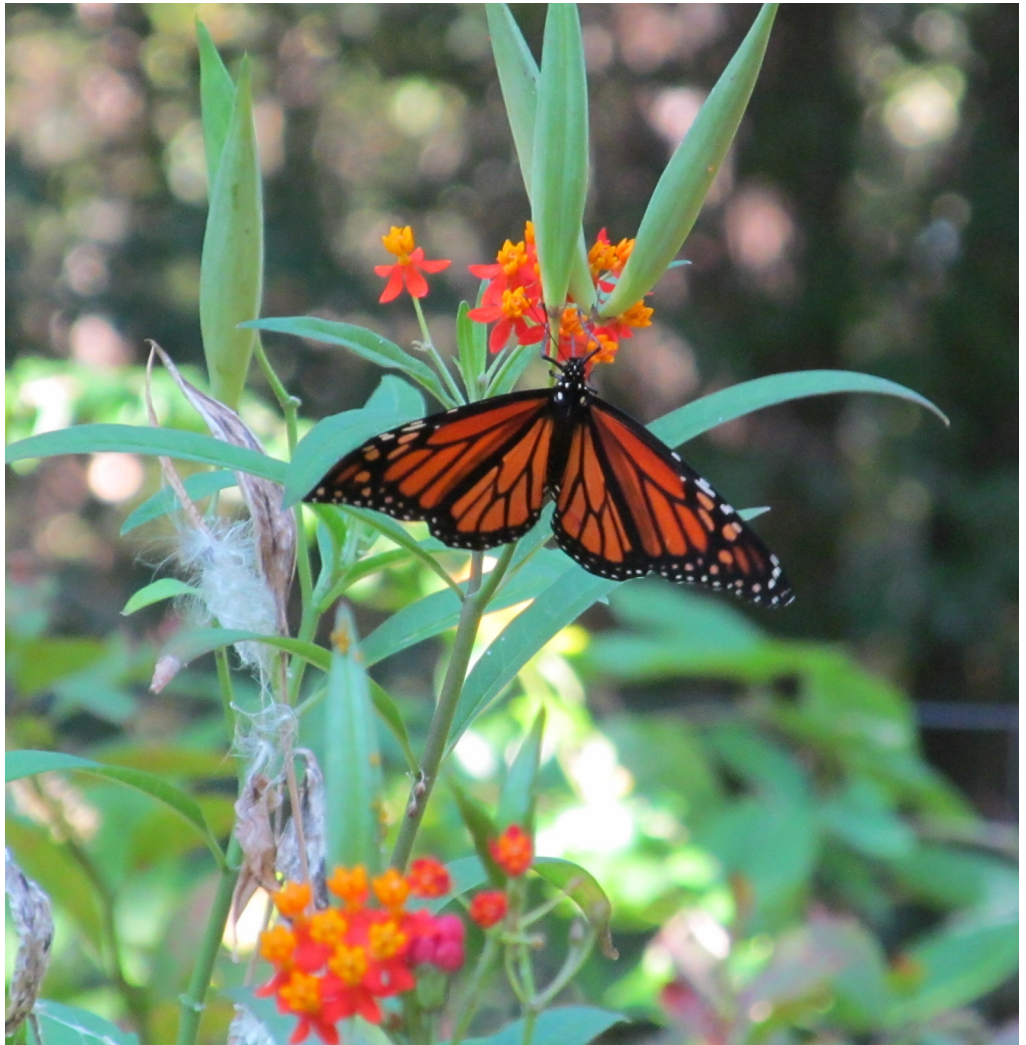
Flood stage on Rock Creek at Chattahoochee Forest NFH, photo: Kelly Taylor, USFWS

Monarchs at Bears Bluff National Fish Hatchery

By Roman Crumpton, Bears Bluff NFH

A Master Gardener from Magnolia Plantation and Gardens in Charleston, South Carolina, helped employees at Bears Bluff National Fish Hatchery propagate milkweed plants for monarch butterfly habitat.

He provided seeds and demonstrated proper planting techniques. Bears Bluff staff members germinated milkweed seeds in the facility's greenhouse and transplanted seedlings outdoors to the hatchery grounds in late spring, where they grew and flowered in the same season! Monarch butterflies and their larvae were first observed on these new plants in early October, during the fall migration through the local area.



Monarch butterfly, photo: USFWS

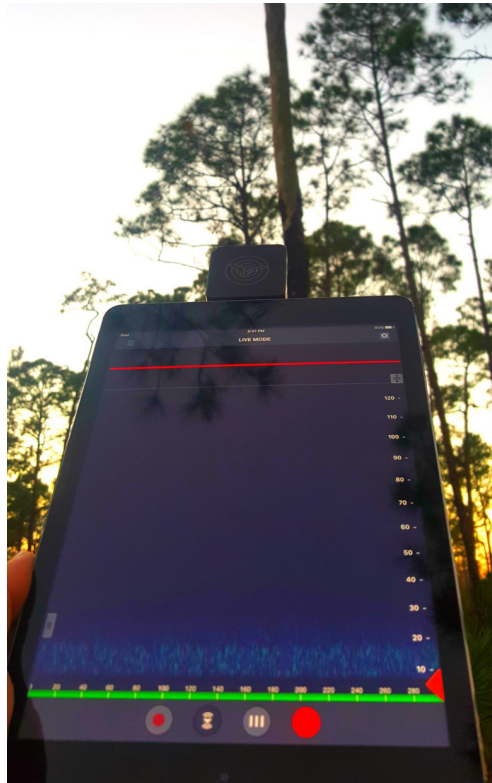
Friends and Volunteers

Collaboration benefits the Florida bonneted bat

By Jessica Sutt, Florida Panther NWR

Last summer, history was made at Florida Panther National Wildlife Refuge when Dr. Elizabeth Braun de Torrez and her University of Florida research team found only the second known active natural roost belonging to one of North America's rarest mammals, the Florida bonneted bat.

Dr. Braun de Torrez's team has been investigating the relationship between fire activity and Florida bonneted bats. While conducting this work at Florida Panther National Wildlife Refuge in Immokalee, Florida, efforts included the daunting task of finding where these elusive bats were roosting. With the discovery of the natural roost and active colony of Florida bonneted bats, the refuge and partners were presented an invaluable opportunity to learn from these rare mammals and contribute to recovery efforts.



Refuge staff and volunteers use Wildlife Acoustics grant award equipment to monitor a snag home to the second known active natural roost of Florida Bonneted Bats, photo: Mark Danaher, Florida Panther NWR

However, the logistics of properly monitoring this roost and gaining new insight into the species weren't going to be feasible without the equipment and people to make it happen.

That's when long-time refuge volunteer, zoologist, professional writer, and bat enthusiast Leah Miller found a grant application for \$5,000 of product-in-kind from Wildlife Acoustics. Leah contacted the Friends of the Florida Panther Refuge and began working with their board, Dr. Braun de Torrez, the South Florida Ecological Services Office, and Bat Conservation International. After over 40 hours of volunteer research and writing, Ms. Miller submitted the grant for the Friends and shortly after submission learned they were one of only two recipients of the Wildlife Acoustics grant, out of a pool of 84 applicants covering 10 countries.

With more acoustic equipment now in hand, refuge staff members and volunteers are monitoring the roost and searching for new colonies, complementing Dr. Braun de Torrez's research. Any new information about distribution, abundance, roosting preferences, or foraging behavior will greatly advance conservation efforts for the bat. ❖

What you didn't know about me

By Tony Daly-Crews, North Florida Ecological Services Office

I have always had a fascination with rattlesnakes. After seeing the general persecution these animals get on a normal basis, I decided it was time to do something before eastern diamondbacks got to the point where they would be beyond help. In 2012, I established the Eastern Diamondback Conservation Foundation and started to do local outreach at conservation events.

After that, I became a Fish and Wildlife biologist with the Service and now spend all of my time outside of work conserving the eastern diamondback rattlesnake. I am the President of the Eastern Diamondback Conservation Foundation and currently have 20 eastern diamondbacks in a breeding program. My goal is to eventually repatriate these animals in areas like North Carolina and Louisiana where they have become rare



Tony Daly-Crews photographs diamondback, photo: Kyle Doe Biological Preserve

or completely extirpated. To further help these "buzztails," The Foundation is bringing eastern diamondbacks to the Claxton Rattlesnake Festival in March as educational animals to help people learn more about these snakes.

Happy Valentine's Day!

